

Industry Seeks EPA-Led Modeling 'Summit' To Resolve NAAQS Concerns

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Industry lawyers are pushing EPA to convene a "summit" of air quality modelers and other experts with the goal of addressing long-running concerns about the agency's increasing reliance on modeling over monitoring to determine compliance with its air standards, an approach critics say could overestimate non-compliance problems.

Industry officials argue that the concerns over modeling are causing a freeze on Clean Air Act permit applications because the models make it difficult for companies to show facilities seeking air permits would not violate agency air standards, while states say the agency's models have flaws and that increased modeling use drains resources.

At a recent EPA Clean Air Act Advisory Committee (CAAAC) meeting in Alexandria, VA, state and industry representatives called for urgent meetings with the agency to resolve what they see as deficiencies in the agency's modeling requirements for its national ambient air quality standards (NAAQS), including EPA's mandates to use modeling in part to determine compliance with its sulfur dioxide (SO₂) and nitrogen dioxide (NO₂) NAAQS.

Traditionally, states and EPA designate areas either in attainment or nonattainment using data mainly gathered from air monitors. In departing from this approach in order to implement its new more stringent SO₂ and NO₂ standards, EPA cites the very short averaging time for the standards, a lack of monitors in remote areas and near roadways and the unique nature of SO₂ emissions to justify increased emphasis on modeling to determine attainment. Areas out of attainment face tougher regulatory requirements and potentially costly new pollution controls.

States have raised concerns over EPA's prohibition on relying solely on monitoring data for determining compliance with the new one-hour SO₂ NAAQS of 75 parts per billion (ppb) EPA issued in June 2010. The agency's approach aims to compensate for a lack of available SO₂ air monitors, but some critics say it can overstate emissions.

Similarly, state air regulators have said that EPA's stricter 1-hour NO₂ NAAQS of 100 ppb issued in February 2010 is creating unanticipated problems for Clean Air Act permit applicants that must demonstrate their projected emissions will not lead to NAAQS violations, because the models tend to predict violations of the stricter standard.

EPA in March issued guidance that aims to address some of the confusion about pending permit applications that allows emissions from nearby emergency generators and startup or shutdown operations at other facilities in the area to be exempted from modeling for compliance demonstrations, though sources have said problems remain.

Critics of EPA's models say they use excessively conservative assumptions, such as industrial facilities running at full capacity all the time and weather conditions always being the most conducive to trapping pollution. This can place areas in nonattainment when actual monitored emissions numbers would place them in attainment.

At the full CAAAC meeting Nov. 17, Pamela Giblin, an industry attorney with law firm Baker Botts, said, "There really is a big difference of opinion right now on how modeling is being used," arguing that where monitors are available for SO₂, monitoring data should be allowed to "trump" modeled data.

Giblin also called for an EPA-led "modeling summit" to allow top experts to look at EPA's modeling requirements, to see if improvements can be made to the agency's models and modeling mandates.

Robert Kaufmann, representing the Koch Companies, said industry sees a "train wreck" in NAAQS modeling, notably for projects that would trigger EPA's new source review or prevention of significant deterioration (PSD) permitting rules that can lead to requirements for facilities to install strict pollution controls. "We are having enormous problems moving PSD projects forward because of the modeling requirements," he said.

Kaufmann said that the Koch Companies and the American Petroleum Institute (API) are jointly trying to establish a workgroup involving industry, EPA and states on modeling, although this effort is in its infancy.

States' Modeling Concerns

States also have concerns over the additional workload imposed by EPA's new modeling policies. EPA has allowed many areas to be initially designated "unclassifiable" for SO₂, because of a lack of available monitors. But unclassifiable areas will still have to conduct extensive modeling for the first time as part of their plans for achieving the SO₂ NAAQS. Several states say they lack the resources to implement those requirements.

CAAAC panelist John Paul, head of Ohio's six-county Regional Air Pollution Control Agency, noted that in an unclassifiable area, "if you model and it shows nonattainment, then you have to be back on the same schedule" to achieve attainment as you would for a confirmed nonattainment area, "and that is a significant issue."

Michigan air regulator G. Vinson Hellwig noted that the six states in EPA's Region V -- Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin -- all have problems with the modeling-based compliance required by the SO₂ NAAQS, because of the additional workload and likelihood of more nonattainment determinations.

Senior EPA air official Janet McCabe told CAAAC "we will work it out." EPA's leadership will talk to the agency's Office of Air Quality Planning and Standards "and find a way to engage people," she said.

Baker Botts' Giblin compared the issue to being told by a weather forecaster that it is raining, when one can see for one's self that it is not.

When pressed by Giblin on whether the modeling approach is the future of NAAQS attainment, and whether it could detect needless apparent NAAQS violations in very large and sparsely-populated areas, McCabe said, "Our intent is to bring a lot of common sense to this. I understand the concern."

EPA senior staffer Richard "Chet" Wayland said that in order for states to meet EPA's goal of establishing a near-road NO₂ monitoring network by 2016 to implement the new NO₂ NAAQS, states will have to move monitors and possibly remove monitors that are no longer essential to monitor for various pollutants, such as ozone.

For SO₂, Wayland argued that "We are not replacing monitoring with modeling. It is a combination of both," echoing arguments EPA has made in its defense in an industry lawsuit. Industry filed the suit in a federal appeals court against the NAAQS for being too stringent. Wayland said many modelers have never had to model sources for compliance with a one-hour NAAQS, and both modelers and EPA are still learning how to do the modeling.

But Wayland defended EPA's models. "I think the models are quite accurate. The model is not conservative or not conservative," it is the inputs to the model that can produce conservative results, he argued.

Funding For Monitors

At the CAAAC meeting, Bill Becker, executive director of the National Association of Clean Air Agencies, suggested that if industry prefers monitors, it should be ready to help pay for them. Perhaps \$100 million would suffice, payable by industry to an independent third party that would distribute funds to states, he said.

"This might be a small price to pay to get it right," Becker said, noting that if modeling resulted in a mistaken nonattainment designation, the result could be imposition of pollution control equipment that could cost \$100 million at one source alone.

API's Howard Feldman said that even if industry could agree on the details of such a plan, it is doubtful that it could achieve a monitoring network dense enough to satisfy EPA's concerns about SO₂ monitoring.

Sources agree that the unique nature of short-term SO₂ emissions would require a much larger number of monitors than are currently available in order to capture possible NAAQS violations.

Susana Hildebrand of the Texas Commission on Environmental Quality echoed that concern, and added, "EPA would have to define what is adequate monitoring before anyone is prepared to invest in that."

Eric Svenson of utility Public Service Electric and Gas Company said if \$100 million is sufficient to provide enough monitors to implement the SO₂ NAAQS -- as floated by Becker -- EPA should re-program its own budget to provide this money, a view supported by other industry representatives.

EPA's William Harnett, however, cast doubt on the prospects for the solution floated by Becker. He said that although EPA has until the SO₂ rule been certifying the adequacy of monitoring networks, it is not doing so for the SO₂ NAAQS because the agency believes monitoring alone cannot meet the needs of the standard.

Harnett said that especially for very large and sparsely populated Western counties, monitoring is "not necessarily the most cost-effective way to get there." The agency is nevertheless promising to take concerns over monitoring into account, he said. -- *Stuart Parker*